

October 31, 1950.

Dr. Margaret Lieb,
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Dear Peggy:

Congratulations on your degree and appointment.

As to support for the hypothesis that UV induces nuclear killing, I think it might be best to avoid any reference to my unpublished work, for, if anything, I can draw rather contrary conclusions from it now, as Kim and I discussed here last Spring. From Lac +/- heterozygotes, one does get Lac+ and - hemizygotes, but also Lac -/- homozygotes, so that the effects involve a rather more complex nuclear reorganization than nuclear killing. In the sense that a nucleus is a unique target I don't think that UV induces nuclear killing. After irradiation, a Lac+/- cell can give rise to a colony which is predominantly Lac- but still contain a residue of other types such as Lac-/- and Lac+/- with other markers homozygous. All of this suggests that the nuclear changes are secondary to other disturbances. This is also borne out by the fact that the initial rate of homozygosis is much too fast in relation to killing, while the proportion of "homozygotes and hemizygotes" does not continue to increase as killing proceeds.

All of this is very confusing. The only conclusion that can be extracted is that, per Atwood, recessive lethal mutations play a negligible role in UV killing. But what is operating is not so clear. Heterozygous yeast diploids would be better material for this problem.

As to openings here, the situation is somewhat unsettled, although there is some possibility that some space for you could be worked out for next Fall... There is even a remote possibility of special funds, but too remote to count on at this stage. There are a few other people to whom I have one or another commitment that has to be considered. A direct fellowship to you would certainly be the most desirable basis — you might inquire about NRC, AEC (for radiation work), Marck, etc. But I especially would like to see your thesis so that I can have some basis for the strength of any representations on your behalf that I might have to make. At the present time, you will understand, I have absolutely no basis on which I could assert your qualifications. From that point of view also, could you mention the people most familiar with your work to whom I could write for an evaluation?

Sincerely,